

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/532,580
Source: PCR
Date Processed by STIC: 1/27/06

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:50

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

3 <110> APPLICANT: CHO-A PHARM CO., LTD.
 4 KIM, Jin-Hoi
 6 <120> TITLE OF INVENTION: PORCINE UROPLAKIN II PROMOTER AND THE PRODUCTION METHOD OF
 USEFUL
 7 PROTEINS USING SAID PROMOTER
 9 <130> FILE REFERENCE: P27726
 11 <140> CURRENT APPLICATION NUMBER: 10/532,580
 12 <141> CURRENT FILING DATE: 2005-04-25
 14 <150> PRIOR APPLICATION NUMBER: PCT/KR2003/002339
 15 <151> PRIOR FILING DATE: 2003-11-04
 17 <150> PRIOR APPLICATION NUMBER: KR-10-2002-0067856
 18 <151> PRIOR FILING DATE: 2002-11-04
 20 <150> PRIOR APPLICATION NUMBER: KR-10-2003-0077256
 21 <151> PRIOR FILING DATE: 2003-11-03
 23 <160> NUMBER OF SEQ ID NOS: 13
 25 <170> SOFTWARE: PatentIn version 3.3
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 8847
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Sus scrofa
 33 <220> FEATURE:
 34 <221> NAME/KEY: promoter
 35 <222> LOCATION: (1)..(8847)
 36 <223> OTHER INFORMATION: porcine uroplakin II promoter
 38 <220> FEATURE:
 39 <221> NAME/KEY: misc_feature
 40 <222> LOCATION: (385)..(385)
 41 <223> OTHER INFORMATION: n is a, c, g, or t
 43 <220> FEATURE:
 44 <221> NAME/KEY: misc_feature
 45 <222> LOCATION: (387)..(387)
 46 <223> OTHER INFORMATION: n is a, c, g, or t
 48 <220> FEATURE:
 49 <221> NAME/KEY: misc_feature
 50 <222> LOCATION: (455)..(455)
 51 <223> OTHER INFORMATION: n is a, c, g, or t
 53 <220> FEATURE:
 54 <221> NAME/KEY: misc_feature
 55 <222> LOCATION: (1261)..(1261)
 56 <223> OTHER INFORMATION: n is a, c, g, or t
 58 <220> FEATURE:
 59 <221> NAME/KEY: misc_feature
 60 <222> LOCATION: (1266)..(1266)
 61 <223> OTHER INFORMATION: n is a, c, g, or t

RAW SEQUENCE LISTING

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:50

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

```

63 <220> FEATURE:
64 <221> NAME/KEY: misc_feature
65 <222> LOCATION: (2446)..(2446)
66 <223> OTHER INFORMATION: n is a, c, g, or t
68 <220> FEATURE:
69 <221> NAME/KEY: misc_feature
70 <222> LOCATION: (3388)..(3388)
71 <223> OTHER INFORMATION: n is a, c, g, or t
73 <220> FEATURE:
74 <221> NAME/KEY: misc_feature
75 <222> LOCATION: (3790)..(3790)
76 <223> OTHER INFORMATION: n is a, c, g, or t
78 <220> FEATURE:
79 <221> NAME/KEY: misc_feature
80 <222> LOCATION: (3795)..(3795)
81 <223> OTHER INFORMATION: n is a, c, g, or t
83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: (6882)..(6882)
86 <223> OTHER INFORMATION: n is a, c, g, or t
88 <220> FEATURE:
89 <221> NAME/KEY: misc_feature
90 <222> LOCATION: (6914)..(6914)
91 <223> OTHER INFORMATION: n is a, c, g, or t
93 <220> FEATURE:
94 <221> NAME/KEY: misc_feature
95 <222> LOCATION: (6916)..(6916)
96 <223> OTHER INFORMATION: n is a, c, g, or t
98 <400> SEQUENCE: 1
99 gggctaggag tggaaatcaga gctggcctat gccacagcaa cgcagaatcc aaaccacatc 60
101 tccgacctac accagaccgt caccataaca caggatcctt aaccactga gcaaggctcag 120
103 ggatcaaacc caaatcctca tggatactag tcgggttctt aaccgctga gccacagtgg 180
105 gcaactcctgt ttttgtttgt gtcttcgttt tttggctgca tctgcagcat acagaagttc 240
107 ctgggttaag gattgaaccc atgccacagc agcaaccga gccacagcag tgacaacagc 300
109 ctgatactta actgctagac caccagggaa cgccccctca acttttcatg ccttggaac 360
W--> 111 cctgagtcag tacaacctga caatngnttt tttttttttt tttttttgcc ttttctaggg 420
113 ccacttcccg cggcatgtgg agattcgcag gctanaggtc taatcggagc tgtagccacc 480
115 ggcctacacc agagccatag caacgagggg tccgagccga gtctgcaacc tacactacag 540
117 ctcatggcaa caccggatcg ttaaccact gagcaaggcc aggggatoga acccgcaacc 600
119 tcatggttcc tagtcagatt cgttaaccac tgcaccatga caggaactcc caacctgaca 660
121 attttatcat ttctgcaccc tagttgttga gtaatttgaa aaattcccaa gatgtcaagg 720
123 tcagtgtgat ggtaatttt atgtgtcaac ctgactagge catgttgccc ggatgtggag 780
125 tcattgttat tctggatgtt actgtgaaga tatgttttgg atgaaattaa catttaaadc 840
127 agtgggggga aaaaaagaag ttctcgttct ggtgcatcag aaacaaatcc gactaggaaa 900
129 caagcgggtg caggttcgat ccctggcctc acttagtgga gtcaggatct ggcgttgccg 960
131 tgagctgtgg tacaggtggc agatgcagct cggatctagc attgctgtgg ctgtggtgta 1020
133 ggcacagcag tgtagctctg attaaacccc aagtctggga acctccatat gccgtgggtg 1080
135 tggcccgaaa aagcaaaaaa taaataaata aataaattta aaccagggga ttttgagcaa 1140
137 agcagattac ccataatat ggggtgggtct catcaagttc attgtaggcc ctagtggaac 1200

```

RAW SEQUENCE LISTING

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:50

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

139	aaagaccgac	ctccaccttc	tccccatgag	aaggaaagaa	ttctgccaaa	agaccgcctt	1260
141	nggacntaaa	ctgcaactct	ttcctgagtt	tccagcatgt	tggcctcccc	catcagactt	1320
143	tggacttgcc	aagcctccgc	aattgcatga	gccaattcct	taaaataaat	ccgtctatat	1380
145	atacacatcc	tgttggttct	gtttctccag	agaaccctga	ctaacgcagt	ctgcaccctt	1440
147	gaagaccagt	gggtcccccaca	ctcagctggg	tgtcacctcc	aaacactcag	ccttcctcaa	1500
149	ggctctttct	agctgtgtcc	tcctctcccc	acaacagctg	tttcaaactc	tcaccctctt	1560
151	tcagggcgca	atccctttctc	ctccctgagt	ttcctacttc	ccagagaaaag	cagagacctt	1620
153	caggagtgtg	ctgccttaac	ttacttcctt	catccctcag	ccttgcaaaa	gtataagctt	1680
155	tctctgcacc	actgccccat	tcttctctct	gcagacaggg	tcatttcctaa	agccaaacgc	1740
157	taatgcctcc	acctctgata	tgagtcccat	cttttccctc	ctccagaagc	ttcctcataa	1800
159	attctacccc	cttttcttcc	ttatctttat	ctttgaaaac	aaaatggaag	acagccttcc	1860
161	cgttggtgtg	cagcggaaac	agtgggtgct	tggaaagcgt	gggacgcagg	ttcgaccctt	1920
163	ggcccagcat	agtaggttaa	ggatccagtg	ttgccacagt	tttggttag	attgaaactg	1980
165	cagctcagat	ctgggtccctg	gcctgggaac	ttcatagcc	acaggacggc	ccaaaaagaa	2040
167	aagaaagaaa	aaataaaaaa	caaaacagaa	aagcctttcc	tgtaccccca	attccctcca	2100
169	gttatctctc	tctttccctt	cccagccaag	ctctgcaaaag	agcgggtctgc	acagttctaa	2160
171	ctctacctcc	tcccagttgg	ccctggactt	tctcagctctg	gcttctaccc	ccctcaccgc	2220
173	taggaatctg	ctctgaagga	cacgcacccc	tcacgatcct	tggcccaggg	acattttttg	2280
175	taccagcctt	tcaatcctga	ccttcataatc	atccgacacc	tcctttgtga	aaccctccat	2340
177	ccactttctc	ctgggtcccc	tcctaagacc	cattccgcct	tcttcagccc	cctccctcca	2400
179	tctgtccttt	agatgccgca	tttctagta	tctgtcctg	cgcggncctg	tccttccctt	2460
181	ccacaactct	cttcaaggac	tcttttctcc	atgtgcgatt	ttgcccattg	cccaccttcc	2520
183	ctctctttac	ccagactttc	ccccggtgct	ccagactcat	agactcaatt	atgaaaacat	2580
185	agttttcatc	tgatttgccc	aagatatttg	cattagttat	tactgtataa	cagcttatcc	2640
187	cccaatttag	tggcttataa	aataaacact	tattctgaga	atcagaaacc	taggcaggac	2700
189	atagttgggg	tctcatgaag	ttgcactgaa	aatgtccccc	tgggctaata	atacggagga	2760
191	ctgaccaggg	ctggaggatc	tgttccaagc	tcattcattc	acatggccgt	aggttgagga	2820
193	cagctcttct	ctggatcttg	gcaggagcct	caattccttg	tcacgtggac	ctccccttgg	2880
195	agggggtccc	atgtcctcca	tggtagtaaa	tccatgagag	caaggtggaa	ggtgccatgc	2940
197	catttaggac	ctagcctcag	gagggacctc	cgtcacttct	gttgtagtct	gttgccaca	3000
199	cagactaacc	ctgacacaat	gcacccatcc	atgacctgct	gccagtccat	tctccacact	3060
201	gtttccagaa	tgatatttac	ataagtaaaa	ctcctcaaag	gcttttgaga	ttttttttcc	3120
203	cattatagtt	gatttataac	ctcagaggct	tttgttttct	tcagcataaa	aaccaagttc	3180
205	cttaacatag	catgtaaccc	actggccacc	ctgccagtgg	ctagaactct	caccatgtcc	3240
207	atccttgaat	actgctttct	agccaagagc	tattgtttgc	agttcccaga	atgtgtcggg	3300
209	ataactcaca	tctctgagcc	ttttcatgtg	ctgttccctc	actttggaat	atccccttcc	3360
211	atthaggaag	gctaattgtc	attcattntc	caaaactcag	aagcaaattt	tttttttttt	3420
213	tttttttttt	tttttttgct	ttttagggcc	gaactctcag	catatggagg	ttcccagggt	3480
215	agccatcaaa	ttggaattgt	agctgctggc	ctacaccaca	gccatagcaa	caccagaccc	3540
217	aagtcacatc	tgcaacctac	atcacagatc	atggcaatac	tggatcctta	acccactgag	3600
219	tgagcccagg	gatcaaacac	aaattctcat	ggatactcgc	caggttcatt	accactgagc	3660
221	cacaacagga	actcctctcc	tttttatggg	cacacctgca	gcataatggaa	gttcctgggc	3720
223	cagggttgga	atctgagtgg	cagctgtgac	aatgccgtat	cctttaattc	actgtgctgg	3780
225	gctgaggggn	taaantgccc	ctcctaaaaa	acctgagctg	ctgcagttgg	attcttaatc	3840
227	cactgcacca	caagggggaa	ggtcaagaac	tgtcttgcca	tctctgtatc	ttatcaccta	3900
229	gcatagtacc	caccatagag	aagttgctca	acaaatgttt	actgaatgaa	taaatgcatg	3960
231	agctggagtt	cccattgcgg	ctcagcagta	acaaacctga	ctagcattca	taagaacttg	4020
233	ggttcgatcc	ctagcctcag	tgggttaagg	atgcagcatt	gctgtgagct	gtggtgtagg	4080
235	tcgcagacga	cactcagatc	ccacattgct	gtcactgtgg	cgcaggccgg	cctctgtagc	4140

RAW SEQUENCE LISTING

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:50

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

```

237 tctgattcga ctctagcct gggaacgtcc atatgccaca ggtgaggccc taaaaagaaa 4200
239 taaataagca agcaagtaag caagcaggca gtttcttggg gccttgtagc cctgtggcct 4260
241 gtgtggtata caagtaacag ctgatccatg tctcagtcac gtttccccct cagactacct 4320
243 ttcttgcccc atctctccct ttgacataat tggaaaaaca aattcagaat tttgtccac 4380
245 tacctttctt gctagctctg tggccttggg aaagctatctt attgcctctg agcctctaata 4440
247 tttcatctgc accaaggatt aataaaaagg agaggataag atgaattact tatattaata 4500
249 tttattgaac cagatactgt gctaggcact cttaaataaa ttagcttgag tgatagtcac 4560
251 agtatcctgg tgagacagat tttttttttt cttttatggg tgcacgtgca acatatggaa 4620
253 gttcctgggc tggggtcgaa ttggagctgc aggtgcttgc ctatgccaca gccatggcaa 4680
255 catcatatac aaaccgcacc tgtgacctac accacagatt gcagcaacgc tggatccttc 4740
257 acccaaggag caaggccagg aatcaaatgt gcacccacac aaacactatg tccggttttt 4800
259 aaccgcgtga gccacaccag gaactccatg gcgagacaga ttttatactc tgtctacaga 4860
261 agaggaaaag gaagctcaga atggttagggt aggtacaattg gccaaagatca aaaaattcaa 4920
263 agaagatttg gggcaagtgg tgatatcaat gcagcattag aaaaaataaa gaagcatcca 4980
265 cttgttttcc aacactgaac aactgagatt ttcttactct cacagctttt tccagcttca 5040
267 tatccaagga cagacgtctt gccattttcc catcagacca atatttgctg aacactgcac 5100
269 ctttactttt aggtccaagt caccaggggt tttccaggtt tgctcctaca gattctgaca 5160
271 ctatctccac attttttttg caccctttat ttaaagcatt tttatactg tcataccttg 5220
273 ctagataaat gggaaggaaat gaatcttccc atttatagggt gagaaaattg aggttcaaag 5280
275 tgactacca aaagtcatat agcatcactc ctcaacagga ggacagcagt cccaccaga 5340
277 gggtaacatg tccatggagc ctagtggaca catttttcta actgactggg aagcagcaga 5400
279 gtgggtattgt gaagggggaa tcatagggtat atcaaacaga cttaggttct gatccgagct 5460
281 attctgcttg caaacaacca tagttcaatt taaaaaaaaa aaagaaagaa agaaagaaag 5520
283 aaaggagccc ccatcctggt gcagtggaaa caaattcaac taggaactgt gaggttgtgg 5580
285 gttcgatccc tggccttgct cagtgggtta aggatctggc gttgccatga gccgtggtgt 5640
287 aggttgcaga ctcaactcag atctggcggt gctgtgactg tggctgtgat gtaggctggc 5700
289 agctgtaact ccggttagac cccagcctgg gaacctccat atgcaacctc catatgcggt 5760
291 ggggtgtggc ctaaaaagaa aaaaaaaaaa aaaagaggaa tcccttatg gctcagcagg 5820
293 ttaaggattc ggtattgtca ctgctgtggc tctagttaaa gccatagtgc aggttcaatc 5880
295 cctggcccag gaacgtctgc atcccacagg tgtggccaaa aaagaaagaa aggaaggagt 5940
297 tctgttgttg cacaatagga ttggcaacat cttaggagta ctgggacaca ggttcaatcc 6000
299 ctggcccagc acagtgggtta aggagccagt gttgctgggtc aaaaaagaaa agaaaaagta 6060
301 ccatagttag agtaaatctg ttttaggagc tattcttttg ggcagaacag agagatcagg 6120
303 agctccttga gagcagaaac ttacctttac atccctcgtg cctagcacgg ttctaggggc 6180
305 atacctggta tttataaat atagccaact ggatagggga ttggaaggaa agagcagggg 6240
307 agggaaacttg agtgagttga aaaattgaga atccaaaggg gagacagcct agaaagagta 6300
309 ggtccaagaa agagatccca ggcattttgt gccctgggtc cctttttcca agccatgagg 6360
311 aaatcctcag aggaacagag tgctgtggct taaatgact tcagcgttgt caatgaatct 6420
313 gctcggctaa aagagttatc ctcttgctcc ttcgcttgct cctccctctc tctcagctcc 6480
315 ccaaaccctt ctcggtgctg gtgatgggat aattagatgc gagagctcag cacagatgat 6540
317 gctccagttg cctagcaact aatggtttcc atggagaccg caaagcacag cctccagagc 6600
319 agccagtga cagctcggca gggcagggag aagacgcaac tctcagctcc tccagaaacc 6660
321 tggggagggc caggagtggg gaagaagggg gggatcggag ggcttaaagg cacaggcccc 6720
323 tcttatcctc ttaaaatctg gtcagagctc tgccctcccc tccctactc tgtccactc 6780
325 ataatttcag atggagtttg gggcttagga gtggacccaa cacaacctac cctgcaataa 6840
327 acccaacctt cttctgctt ctggtttgtg gctgaaaaat gnaaaagaaa tctcccaagt 6900
329 gcaagtgtaa acancntcct ggggtggcaa tgggatctga agagtactaa gatccctcag 6960
331 acctggaatt ccaccattta gtctttccct ctctccaaag ttctcaatgt gcaaaagatc 7020
333 ctctttcagt ttgcagagca atgataggat cttctaaaag gagacaaaag ccaagggtgca 7080

```

RAW SEQUENCE LISTING

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:50

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

```

335 ggaaaaatag aattcagttc ttcacccaaa ggcagcctgt cctgggagac aggggtgaaa 7140
337 cacttggtcc tgatctccat cagaggatcc agagtgtgtg tgtttgttgc tggggagggg 7200
339 gacacaatat agagcatctg gtgactcaaa gtatgtgcct cccagagtag catcaatcaa 7260
341 tgttacctgg aagcttggtt gaaatgcaga atttcaggct tcacctcaga cccactgaat 7320
343 cagaaactgc atcttaacaa gatccctcat gattcatacg cacattaaat ttggagaagc 7380
345 gctgacctga gaccctcctc ctctctgctt gggcccatag ttctaccttt attgtcacct 7440
347 cgtctcacct cgtgctcata ccccaggctt tgagcctacc cttcccccca tggggaaagg 7500
349 acacaaggcc accagccctt cacttcccta ccaggacctt ggccctcctc tgggactgga 7560
351 gaaggacaaa gaggaccccc tctgtggagg tctacgacct ctctgacca agtagtccac 7620
353 tcaccacaag tggtcttacc tctctgagtc tcagtttcca catccacaaa aggtggccaa 7680
355 tgctatctgc caccagaat ggctgtgagg gtggagcagg caaagcctct gtgccatcag 7740
357 agaaattgtg tctctttttt attttctccc agtgggtttc tttctcgtct ttattctttt 7800
359 tttttttttt ttttctgtc tgttgatatt ttagggcgt gcctgtggca tacggaagtt 7860
361 cccagggtag ggggtccaatg ggagctgtag ccccgggcct acgccacagc cacagcaatg 7920
363 tgggatctga gccacgtctg caacctacac cacagctcac ggcaacacca gatccttaac 7980
365 ccactgagca aggccaggga tcgagccac gtccctcatg atgctagtgt gggtcgttaa 8040
367 ccgtgagcc atgatgataa ctctctttt tattcttttag tcacaaacag tcaacaaagg 8100
369 ttgtgacca aggtgatcg tgcccacccc ccagccccc agactgggcc agtgcccacc 8160
371 ccttgggctt ctctggaaat cctgcccagc atcaattggc tccactctcc aggaggatgg 8220
373 gaagccctgt ggcccttggg actcacaccc ctctgcatct cccagagtgc aggacctggt 8280
375 cttcaggaga caccaagaac tggctcccc ggctctgctg ccccccacccc ctactaccag 8340
377 tttctctccc attcctgccc agtccaggcc ccctgggggtt actctcctct ctctgtacac 8400
379 cagtgaacc tcagaacctg cttccctcct gggaacacccc actaccacgt gggagaaggg 8460
381 gtcgtctagg gggtgggccc cagatacact tgtaagcagg aacacacgag cccttacatg 8520
383 tgggtgtccc ggaagaaggg gggtttccac ccccgcttt agtcaccctg cccctctgca 8580
385 gctgcctgag ccaccaagac ccagccaagg tctcctgcct tctggcctga gggccagctc 8640
387 cccatcctga aaaacctgtc tgggggcctc ccctgaggct gtagggccca aggcctcccc 8700
389 tgaggctgta gggcccaagg ggcagggtga acaggattcc cctctggccc ctccatcccc 8760
391 caggacaaaa ccagagcccc aggacagggc ctcacttgcc tcaggaaacc acagcttgcc 8820
393 agcaccagc ccagcaccag cccagct 8847
396 <210> SEQ ID NO: 2
397 <211> LENGTH: 20
398 <212> TYPE: DNA
399 <213> ORGANISM: Artificial sequence
401 <220> FEATURE:
402 <223> OTHER INFORMATION: forward primer for amplifying porcin uroplakin II gene
404 <400> SEQUENCE: 2
405 gatcctgatt ctgctggctb 20
408 <210> SEQ ID NO: 3
409 <211> LENGTH: 20
410 <212> TYPE: DNA
411 <213> ORGANISM: Artificial sequence
413 <220> FEATURE:
414 <223> OTHER INFORMATION: reverse primer for amplifying porcin uroplakin II gene
416 <400> SEQUENCE: 3
417 atggtggtca tcacrgtgct 20
420 <210> SEQ ID NO: 4
421 <211> LENGTH: 3602
422 <212> TYPE: DNA

```

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:51

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 385,387,455,1261,1266,2446,3388,3790,3795,6882,6914,6916

VERIFICATION SUMMARY

DATE: 01/27/2006

PATENT APPLICATION: US/10/532,580

TIME: 14:54:51

Input Set : A:\P27726subSEQLIST.txt

Output Set: N:\CRF4\01272006\J532580.raw

L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:360

M:341 Repeated in SeqNo=1